

TICK LOCALITY AND HOST RECORDS FROM LONG ISLAND AND SOUTHEASTERN NEW YORK STATE¹

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Arbovirus surveys conducted during 1971 by the Bureau of Epidemiology, New York State Department of Health included the collection of large numbers of certain groups of blood sucking arthropods to be tested for natural infection with arboviruses. Ticks were collected by dragging and by examination of horses, dogs, trapped wild mammals, and netted birds. All specimens were identified before pooling for tests, and representative samples of all lots as well as all unusual or hard to determine specimens were kept for positive identification. Some ticks also were collected or acquired from other sources, e. g. from animals found dead along highways and specimens sent to us for identification. Altogether we identified a total of more than 4,000 ticks of all stages comprising eight species in five genera from the area during 1971. This included *Amblyomma americanum* (Linn.); *Dermacentor variabilis* (Say); *Haemaphysalis leporispalustris* Packard; *Ixodes dentatus* Marx; *Ixodes muris* Bishopp and Smith; *Ixodes scapularis* Say; *Ixodes texanus* Banks; and *Rhipicephalus sanguineus* Latreille. The addition of *I. texanus* and confirmation of the current presence of *A. americanum* in New York bring the State list of ticks to 16 species in six genera. (Jamback, 1969).

A major portion of the tick collections were made at a large guest ranch near Montauk Point, Suffolk County, New York at the southeastern tip of Long Island, between May 5 and October 20, 1971. The most significant development at this location was the finding of the Lone Star tick, *Amblyomma americanum*, a southern species which is

¹Accepted for publication: January 24, 1972 [3.0167].

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an established vector of Rocky Mountain spotted fever and tularemia. A total of 19 specimens were obtained consisting of eight males, seven females and two nymphs taken by dragging or on clothing, one nymph attached to man (the writer), and one engorged female from a horse. Thus there can be no question regarding the establishment of *A. americanum* in at least this one small area of Long Island. The geographical extent of the area infested by *A. americanum* is not known because collections were made only in one locality in Suffolk County. In view of the fact that Collins et al, (Anastos 1947; Collins, Nardy, and Glasgow 1949a and 1949b) failed to find this species in their collections throughout eastern Long Island in 1946, 1947, and 1948, including some collections made less than two miles from the area where our specimens were taken, it is possible that this is either an isolated and very delimited infestation or a very recent introduction. Either or both of these theories are given added weight by the fact that this ranch each spring brings in horses from other States including southern and southwestern States where *A. americanum* is abundant, and has at times in the past also imported cattle from southwestern States.

In view of the fact that this species is of considerable importance both in disease transmission and in annoyance to man and domestic and wild animals it might be advisable to determine whether this is in fact a small isolated infestation and if so to take the necessary measures to eradicate it before it becomes widespread over Long Island. We are able to find only two other specific records of *A. americanum* in New York State during the past century, both involving only one specimen each, and this southern species had been considered to be no longer established this far north. However, specimens have been reported from Maine, Massachusetts and Rhode Island, (Clifford et al 1961); and from Connecticut and Michigan (Bishopp and Trembley 1945). Most, if not all, of these records would appear to be accidental importations of a temporary nature and do not indicate establishment of this species in those states. The other two recent records of *A. americanum* in New York State are (1) Rehn 1953, one partly engorged female removed from a child at a military installation, (Fort Wadsworth), Staten Island, May 1952, but with no more specimens found in a subsequent investigation, and, (2) Jamback (1969,) one engorged specimen removed from a patient in Catskill, N.Y. (June 1954) who had just returned from Long Island. Undoubtedly this tick was picked up on Long Island but the exact locality is unknown.

New tick-host records from Montauk Point include the following: *Ixodes muris*, 27 nymphs and one larva on a Bobwhite, *Colinus virginianus* (June); one nymph on an American woodcock, *Philohela minor* (July); six nymphs on starlings, *Sturnus vulgaris* (July); three nymphs on a red-winged blackbird, *Agelaius phoenicius* (July); and two nymphs on a brown-headed cowbird, *Molothrus ater* (July). Several host records listed only one or two times previously have been duplicated in our collections, e.g., *Ixodes muris* on man, Eastern cottontail, catbird, brown thrasher, and robin; and *I. dentatus* on a robin.

In Westchester County one engorged female of *I. scapularis* was taken on November 10th from a dog in Ossining which had been allowed to run in brushy areas of Manursing Island, Rye, four days previously. Nearly all other New York records of *I. scapularis* are from eastern Long Island or on man or dogs recently returned from there.

Ixodes texanus has not, as far as we can determine, been reported from New York State or nearer to it than Maryland, Delaware, Iowa, and western Ontario. On June 28, 1971 we took five engorged females from a raccoon, *Procyon lotor*, found dead along U. S. Route 6 near the west end of Bear Mountain State Park in Orange County, N.Y. On July 7, 1971 three more female *I. texanus* were taken on a raccoon found dead on U. S. Route 9 in Ossining, Westchester County, N.Y. These two records, coming from both sides of the Hudson River, would appear to indicate a general distribution of this species on its favorite host the raccoon at least in the lower Hudson River valley of New York State.

Specimens representing all new locality and host records and most of the new host records were examined by Dr. C. M. Clifford, Rocky Mountain Laboratory, Hamilton, Montana, and/or by John K. Chlada, University of Maryland and the writers determinations verified.

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2.0167 Tick Locality and Host Records from Long Island and Southeastern New York State.

ABSTRACT.—*Amblyomma americanum* (L.) was found to be established at Montauk Point at the extreme eastern end of Long Island. This is the first recent record of its establishment in New York State. *Ixodes muris* Bishopp and Smith was taken on five additional species of birds for the first time, at the same location. *Ixodes texanus* Banks was found on raccoons in Bear Mountain State Park and Ossining, these being the first records from New York or from adjacent States. Sixteen species of ticks are now reported from New York State.

Descriptors: Ticks; new records; *Amblyomma americanum*, Long Island; *Ixodes muris*, birds; *Ixodes texanus*, New York.